

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(currently amended)** An optical characteristic measuring apparatus for measuring ~~[[the]]~~ characteristics of devices under test having ~~[[the]]~~ a first optical transmission line letting light through in one direction only and ~~[[the]]~~ a second optical transmission line letting light through only on ~~[[the]]~~ a direction opposite to the aforementioned direction comprising:

a variable wavelength light source for generating a variable wavelength light, ~~the wavelength of which is variable;~~

a first light modulating means for introducing into said first optical transmission line ~~[[the]]~~ a first incident light obtained by modulating said variable wavelength light by a ~~[[the]]~~ frequency of an ~~[[the]]~~ electrical signal inputted;

a first optical/electrical converting means for converting by ~~[[the]]~~ a first optical/electrical conversion process the first incident light having penetrated said first optical transmission line;

a fixed wavelength light source for generating a fixed wavelength light, ~~the wavelength of which is fixed;~~

a signal source for generating reference electrical signal ~~signals of given frequencies;~~

a second light modulating means for injecting into said second optical transmission line ~~[[the]]~~ a second incident light obtained by modulating said fixed wavelength light by a ~~[[the]]~~ frequency of said reference electrical ~~signals~~ signal; and

a second optical/electrical converting means for converting by ~~[[the]]~~ a second optical/electrical conversion process the second ~~outgoing incident~~ light having penetrated said second optical transmission line; and for outputting the ~~converted second outgoing light~~ electrical signal onto said first light modulating means.

2-4. *(cancelled)*

5. **(currently amended)** The optical characteristic measuring apparatus according to claim 1 comprising:

a phase comparing means for measuring ~~[[the]]~~a phase difference between ~~[[the]]~~an electrical~~—signals~~ signal for measurement~~—outputted~~ output by said first optical/electrical converting means and said reference electrical signals; and

a characteristic computing means for computing ~~[[the]]~~a group delay characteristic or ~~[[the]]~~a dispersion characteristic of the devices under test by using said phase difference.

6. **(cancelled)**

7. **(currently amended)** A light generating apparatus used in an apparatus for measuring ~~[[the]]~~ characteristics of devices under test having ~~[[the]]~~a first optical transmission line letting light through only in one direction and ~~[[the]]~~a second optical transmission line letting light through only on ~~[[the]]~~a direction opposite to said one direction comprising:

a variable wavelength light source for generating a variable wavelength light,~~—the wavelength of which is variable;~~

a first light modulating means for introducing into said first optical transmission line ~~[[the]]~~a first incident light obtained by modulating said variable wavelength light by a ~~[[the]]~~ frequency of ~~an~~ electrical ~~signals~~ signal inputted; and

a second optical/electrical converting means for converting by ~~[[the]]~~ an optical/electrical conversion process ~~[[the]]~~a second ~~outgoing~~ incident light having penetrated said second optical transmission line and for outputting the ~~converted second outgoing light~~ electrical signal onto said first light modulating means.

8. **(currently amended)** An optical characteristic measuring apparatus for measuring ~~[[the]]~~ characteristics of devices under test having a first optical transmission line letting light through only in one direction and a second optical transmission line letting light through only in ~~[[the]]~~a direction opposite to said one direction comprising:

a first optical/electrical converting means for converting by ~~[[the]]~~a first optical/electrical conversion process ~~[[the]]~~a first incident light having penetrated said first optical transmission

line;

a fixed wavelength light source for generating a fixed wavelength light, ~~the wavelength of which is fixed~~;

a signal source for generating reference electrical ~~signals of given frequencies~~ signal; and

a second light modulating means for introducing into said second optical transmission line ~~[[the]]~~ a second incident light obtained by modulating said fixed wavelength light by a ~~[[the]]~~ frequency of said reference electrical ~~signals~~ signal.

9-12. (cancelled)

13. **(currently amended)** An optical characteristic measuring method for measuring ~~[[the]]~~ characteristics of devices under test having ~~[[the]]~~ a first optical transmission line letting light through in one direction only and ~~[[the]]~~ a second optical transmission line letting light through only on ~~[[the]]~~ a direction opposite to the aforementioned direction comprising:

a variable wavelength light generating step for generating a variable wavelength light, ~~the wavelength of which is variable~~;

a first light modulating step for introducing into said first optical transmission line ~~[[the]]~~ a first incident light obtained by modulating said variable wavelength light by a ~~[[the]]~~ frequency of an ~~[[the]]~~ electrical signal inputted;

a first optical/electrical converting step for converting by ~~[[the]]~~ a first optical/electrical conversion process the first incident light having penetrated said first optical transmission line;

a fixed wavelength light generating step for generating a fixed wavelength light, ~~the wavelength of which is fixed~~;

a signal generating step for generating reference electrical ~~signals of given frequencies~~ signal;

a second light modulating step for injecting into said second optical transmission line the second incident light obtained by modulating said fixed wavelength light by a ~~[[the]]~~ frequency of said reference electrical ~~signals~~ signal; and

a second optical/electrical converting step for converting by ~~[[the]]~~ a second optical/electrical conversion process the second ~~outgoing incident~~ light having penetrated said

second optical transmission line; and for outputting the ~~converted second outgoing light~~ electrical signal onto said first light modulating step.

14-15. (cancelled)

16. **(currently amended)** A light generating method used in a method for measuring [[the]] characteristics of devices under test having [[the]] a first optical transmission line letting light through only in one direction and [[the]] a second optical transmission line letting light through only on [[the]] a direction opposite to said one direction comprising:

a variable wavelength light generating step for generating a variable wavelength light, ~~the wavelength of which is variable~~;

a first light modulating step for introducing into said first optical transmission line [[the]] a first incident light obtained by modulating said variable wavelength light by a [[the]] frequency of ~~an electrical signals~~ signal inputted; and

a second optical/electrical converting step for converting by [[the]] ~~an~~ optical/electrical conversion process [[the]] a ~~second outgoing incident~~ light having penetrated said second optical transmission line and for outputting the ~~converted second outgoing light~~ electrical signal onto said first light modulating step.

17. **(currently amended)** An optical characteristic measuring method for measuring [[the]] characteristics of devices under test having a first optical transmission line letting light through only in one direction and a second optical transmission line letting light through only in [[the]] a direction opposite to said one direction comprising:

a first optical/electrical converting step for converting by [[the]] ~~an~~ optical/electrical conversion process [[the]] a first incident light having penetrated said first optical transmission line;

a fixed wavelength light generating step for generating a fixed wavelength light, ~~the wavelength of which is fixed~~;

a signal generating step for generating a reference electrical ~~signals of given frequencies~~ signal; and

a second light modulating step for introducing into said second optical transmission line ~~[[the]]~~a second incident light obtained by modulating said fixed wavelength light by a ~~[[the]]~~ frequency of said reference electrical-~~signals~~ signal.

18-21. (cancelled)

22. **(currently amended)** A computer-readable medium having a program of instructions for execution by ~~[[the]]~~a computer to perform an optical characteristic measuring process for measuring ~~[[the]]~~ characteristics of devices under test having ~~[[the]]~~a first optical transmission line letting light through in one direction only and ~~[[the]]~~a second optical transmission line letting light through only on ~~[[the]]~~a direction opposite to the aforementioned direction, said optical characteristic measuring process comprising:

a variable wavelength light generating processing for generating a variable wavelength light,~~the wavelength of which is variable;~~

a first light modulating processing for introducing into said first optical transmission line ~~[[the]]~~a first incident light obtained by modulating said variable wavelength light by a ~~[[the]]~~ frequency of an ~~[[the]]~~ electrical signal inputted;

a first optical/electrical converting processing for converting by ~~[[the]]~~a first optical/electrical conversion process the first incident light having penetrated said first optical transmission line;

a fixed wavelength light generating processing for generating a fixed wavelength light,~~the wavelength of which is fixed;~~

a signal generating processing for generating a reference electrical-~~signals of given frequencies~~ signal;

a second light modulating processing for injecting into said second optical transmission line ~~[[the]]~~a second incident light obtained by modulating said fixed wavelength light by a ~~[[the]]~~ frequency of said reference electrical-~~signals~~ signal; and

a second optical/electrical converting processing for converting by ~~[[the]]~~ a second optical/electrical conversion process the second-~~outgoing incident~~ light having penetrated said second optical transmission line; and for outputting the ~~converted second outgoing light~~

electrical signal onto said first light modulating processing.

23-24. (cancelled)

25. **(currently amended)** A computer-readable medium having a program of instructions for execution by [[the]]a computer to perform a light generating process used in a process for measuring [[the]] characteristics of devices under test having [[the]]a first optical transmission line letting light through only in one direction and [[the]]a second optical transmission line letting light through only on [[the]]a direction opposite to said one direction, said light generating process comprising:

a variable wavelength light generating processing for generating a variable wavelength light, ~~the wavelength of which is variable~~;

a first light modulating processing for introducing into said first optical transmission line [[the]]a first incident light obtained by modulating said variable wavelength light by a [[the]] frequency of an ~~electrical signals~~ signal inputted; and

a second optical/electrical converting processing for converting by [[the]]an optical/electrical conversion process [[the]]a ~~second-outgoing incident~~ light having penetrated said second optical transmission line and for outputting ~~the converted second-outgoing light~~ electrical signal onto said first light modulating processing.

26. **(currently amended)** A computer-readable medium having a program of instructions for execution by [[the]]a computer to perform an optical characteristic measuring process for measuring [[the]] characteristics of devices under test having a first optical transmission line letting light through only in one direction and a second optical transmission line letting light through only in the direction opposite to said one direction, said optical characteristic measuring process comprising:

a first optical/electrical converting processing for converting by [[the]]an optical/electrical conversion process [[the]]a first incident light having penetrated said first optical transmission line;

a fixed wavelength light generating processing for generating a fixed wavelength light;

~~the wavelength of which is fixed;~~

a signal generating processing for generating a reference electrical ~~signals of given frequencies~~ signal; and

a second light modulating processing for introducing into said second optical transmission line ~~[[the]]~~ a second incident light obtained by modulating said fixed wavelength light by a ~~[[the]]~~ frequency of said reference electrical ~~signals~~ signal.

27-30. (cancelled)